

MICHAEL D. FOX

Ecological Oceanography Lab
Red Sea Research Center
King Abdullah University of Science & Technology
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EDUCATION

- 2018 **Scripps Institution of Oceanography** (SIO), University of California San Diego
Ph.D. in Marine Biology
The trophic ecology of reef-building corals: the influence of resource availability on coral nutrition at multiple scales
Advisor: Dr. Jennifer Smith
- 2013 **Moss Landing Marine Laboratories** (MLML),
M.S. in Marine Science
Effects of biomass loss on growth and resource allocation in giant kelp
Advisor: Dr. Michael Graham
- 2008 **University of San Diego**, B.A. in Marine Science

PROFESSIONAL APPOINTMENTS

- 2021 – Pres. Assistant Research Professor, **Red Sea Research Center**, King Abdullah University of Science and Technology (**KAUST**)
- 2021 – Pres. Guest Investigator, **Woods Hole Oceanographic Institution** (WHOI)
- 2018 – 2021 Interdisciplinary Postdoctoral Scholar, Geology & Geophysics and Biology **Woods Hole Oceanographic Institution** (WHOI)
Advisors: Drs. Anne Cohen and Simon Thorrold

PUBLICATIONS (* mentored students) – Citations: 894 h-index: 16 i10-index: 25

In Review or Revision

Fox, M.D., Guillaume-Castel, R., Edwards, C.B., *Glanz, J., Gove, J.M., Green, J.A.M., *Juhlin, E., Smith, J.E., Williams, G.J. Ocean currents magnify upwelling and deliver nutritional subsidies to reef-building corals during El Niño heatwaves. *In review*

Eakin, C. M. *et al.* including **Fox, M.D.** 2014-2017 Global coral bleaching event: the most severe and widespread ever recorded. *In revision*

2022

35. Eladawy, A., Nakamura, T., Shaltout, M., Mohammed, A., Nadaoka, K., **Fox, M.D.**, Osman, E.O. Appraisal of coral bleaching thresholds and thermal projections for the northern Red Sea refugia. *Frontiers of Marine Science (In Press)*
34. Rivera, H., Cohen, A.L., Thompson, J.R., Baums, I.B., **Fox, M.D.**, Meyer-Kaiser, K. Genetic patterns in bleaching resistant corals in Palau. *Communications Biology (In Press)*

33. Elliott Smith, E.A., **Fox, M.D.**, Fogel, M.L., Newsome, S.D. 2022. Amino acid $\delta^{13}\text{C}$ fingerprints of nearshore marine autotrophs are consistent across broad spatiotemporal scales: an intercontinental isotopic library and likely biochemical drivers. *Functional Ecology* 36: 1191-1203.
32. Roche, R. Heenan, A., Taylor, B., Schwarz, J., **Fox, M.D.**, Southworth, L., Williams, G., Turner, J. Linking variation in planktonic primary production to reef fish growth and condition. *Royal Society Open Science* 9: 201012
31. *Khen, A., Johnson, M.D., **Fox, M.D.**, Clements, S., Carter, A.L., Smith, J.E. Decadal stability of coral reef benthic communities on Palmyra Atoll, central Pacific, through two thermal anomalies. *Coral Reefs* 41: 1017-1029.
30. Sandin, S.A., Alcantar, E., Clark, R., de Leon, R., Dilrosun, F., Edwards, C.B., Estep, A.J., Eynaud, Y., French, B.J., **Fox, M.D.** et al. Benthic assemblages are more predictable than fish assemblages across sites on Curacao. *Coral Reefs* 41: 1031-1043.
29. Leliaert, F., Kelly, E.L.A., Janoušková, J., **Fox, M.D.**, Johnson, M.D., Redfern, F., Eria, T., Haas, A.F., Sala, E., Sandin, S.A., Smith, J.E. *Brilliantia kiribatiensis*, a new genus and species of Cladophorales (Chlorophyta) from the remote coral reefs of the Southern Line Islands, Pacific Ocean. *J. Phycology* 58: 183-197. *Cover article

2021

28. **Fox, M.D.**, Cohen, A.L., Rotjan, R., Manguhbai, S., Sandin, S.A., Smith, J.E., Thorrold, S., *Dissly, L., Mollica, N.R., Obura, D. 2021. Increasing coral reef resilience through successive marine heatwaves. *Geophysical Research Letters* 48: e2021GL094128.
27. **Fox, M.D.**, Nelson, C.E., Oliver, T.A., *Quinlan, Z.A., Remple, K., *Glanz, J., Smith, J.E., Putnam, H.M. 2021. Differential resistance and acclimatization of two Hawaiian coral species to chronic nutrient enrichment reflect life history traits. *Functional Ecology* 35: 1081-1093. doi.org/10.1111/1365-2435.13780
26. Elliott Smith, E.A. and **Fox, M.D.** 2021. Characterizing energy flow in kelp forests: a geochemical review and call for additional research. *Ecography* 44:1-16.
25. Skinner, C., Mill, A.E., **Fox, M.D.**, Newman, S.P., Zhu, Y., Kuhl, A., Polunin, N.V.C. 2021. Pelagic subsidies dominate carbon inputs to coral reef predators. *Science Advances* 7: eabf3792.
24. Remple, K.L., Silbiger, N.J., Quinlan, Z.A., **Fox, M.D.**, Wegley Kelly, L., Donahue, M.J., Nelson, C.E. 2021. Coral reef biofilm bacterial diversity and successional trajectories respond to reef benthic composition and chronic nutrient enrichment. *NPJ Biofilms and microbiomes* 7:84.

2020

23. Johnson, M.D., **Fox, M.D.**, Kelly, E.L.A., Zgliczynski, B.J., Sandin, S.A., Smith, J.E. 2020. Ecophysiology of coral reef primary producers across an upwelling gradient in the tropical central Pacific. *Plos One* 15(2): e0228448

22. Sandin, S.A., Edwards, C.B., Pedersen, N.E., Petrovic, V., Pavoni, G., Alcantar, E., *Chancellor, K.S., **Fox, M.D.**, Stallings, B., Sullivan, C.J., Rotjan, R., Corsinilo, M., Zgliczynski, B.J. 2020. Considering the rates of growth in two taxa of coral across Pacific islands. *Advances in Marine Biology* 87: 167-191.

2019

21. **Fox, M.D.**, Elliot Smith, E.A., Smith, J.E., Newsome, S.D. 2019. Trophic plasticity in a common reef-building coral: Insights from $\delta^{13}\text{C}$ analysis of amino acids. *Functional Ecology* 33: 2203-2214. *Featured on the journal's blog: *The Functional Ecologist*
20. **Fox, M.D.**, Carter, A.L., Edwards, C.B., Takeshita, Y., Johnson, M.D., Petrovic, V., Amir, C., Sala, E., Sandin, S.A., Smith, J.E. 2019. Limited coral mortality following acute thermal stress and widespread bleaching on Palmyra Atoll, central Pacific. *Coral Reefs* 38: 701-712.
19. Miller, S.D., Zgliczynski, B.J., **Fox, M.D.**, Kaufman, L.S., Michener, R.H., Sandin, S.A., Hamilton, S.L. 2019. Niche width expansion of coral reef fishes along a primary production gradient in the remote central Pacific. *Marine Ecology Progress Series* 625: 127-143.
18. Zgliczynski, B.J., Williams, G.J., Hamilton, S.L., Corder, E.G., **Fox, M.D.**, Eyraud, Y., Michener, R.H., Kaufman, L.S., Sandin, S.A. 2019. Foraging consistency of coral reef fishes across environmental gradients in the central Pacific. *Oecologia* 191:433-445.
17. Radice, V.Z., Hoegh-Guldberg, O., Fry, B., **Fox, M.D.**, Dove, S.G. 2019. Upwelling as the major source of nitrogen for shallow and deep reef-building corals across an oceanic atoll system. *Functional Ecology* 33:1120-134.
16. Radice, V.Z., Brett, M.T., Fry, B., **Fox, M.D.**, Hoegh-Guldberg, O., Dove, S.G. 2019. Evaluating coral trophic strategies using fatty acid composition and indices. *Plos One* 14(9): e0222327.
15. Carter, A.C., Edwards, C.B., **Fox, M.D.**, Amir, C., Johnson, M.D., Lewis, L.S., Sandin, S.A., Smith, J.E. 2019. Spatial and temporal dynamics of the corallimorph, *Rhodactis howesii*, at Palmyra Atoll. *Coral Reefs* 38: 1267-1279
14. Wegley-Kelly, L., Haas, A.F., Nelson, C.E., Naliboff, D., Calhoun, A., Carlson, C.A., Edwards, R.A., **Fox, M.D.**, et al. 2019. Diel population and functional synchrony of microbial communities on coral reefs. *Nature Communications* 10, 1691.

2018

13. **Fox, M.D.**, Williams, G.J., Johnson, M.D., Radice, V.Z., Zgliczynski, B.J., Kelly, E.L.A., Rohwer, F., Sandin, S.A., Smith, J.E. 2018. Gradients in primary production predict the trophic strategies of mixotrophic corals at multiple spatial scales. *Current Biology* 28:1-9. *Highlighted Article with commentary
[Wiedenmann and D'Angelo 2018. Symbiosis: High-carb diet of reef corals as seen from space. Current Biology Dispatch, 28 R1243-R1265.](#)
12. Williams, G.J., Sandin, S.A., Zgliczynski, B.J., **Fox, M.D.**, Gove, J.M., Rogers, J.S., Furby, K.A., Hartman, A., Caldwell, Z.R., Price, N.N, Smith, J.E. 2018. Biophysical drivers of coral trophic depth zonation. *Marine Biology* 165: 60.

11. Silbiger, N.A, Nelson, C.A., Remple, K., Sevilla, J., Quinlan, Z., Putnam, H., **Fox, M.D.**, Donahue, M. 2018. Nutrient pollution disrupts key ecosystem functions on coral reefs. *Proceedings of the Royal Society - Biology* 285: 20172718.
10. Quinlan, Z.A., Remple, K., **Fox, M.D.**, Silbiger, N.J., Sevilla, J.K., Oliver, T.A., Putnam, H.M., Wegley-Kelly, L., Carlson, C.A., Donahue, M.J., Nelson, C.E. 2018. Fluorescent organic exudates of corals and algae on tropical reefs are compositionally distinct and increase with nutrient enrichment. *Limnology and Oceanography Letters* 3: 331-430.

Pre 2018

9. Moritz, C., Ducarme, F., Sweet, M., **Fox, M.D.**, Zgliczynski, B.J., Ibrahim, N., Basheer, A., Furby, K.A., Caldwell, Z.R., Pisapia, C., Grimsditch, G, Abdulla, A. 2017. The “resort effect”: can tourist islands act as a refuge for coral reef species? *Diversity and Distributions* 23: 1301-1312.
8. **Fox, M.D.** 2016. Biomass loss reduces growth and resource translocation in giant kelp, *Macrocystis pyrifera*. *Marine Ecology Progress Series* 562: 65-77.
7. Nakajima, R., Nakatomi, N., Kurihara, H., **Fox, M.D.**, Smith, J.E., Okaji, K. 2016. Crown-of-thorns starfish larvae feed on organic matter released from corals. *Diversity* 8:4.
6. Enochs, I.C., Manzello, D.P., Donham, E., Kolodziej, G., Okano, R., Johnston, L., Young, C., Iguel, J., Edwards, C., **Fox, M.D.**, et. al. 2015. Shift from coral to macroalgal dominance on a volcanically acidified reef. *Nature Climate Change* 5: 1083-1088.
5. Foley, M.M., Martone, R.G., **Fox, M.D.**, Kappel, C.V., Mease, L.A., Erickson, A.L., Halpern, B.S., Selkoe, K.A., Taylor, P., Scarborough, C. 2015. Using ecological thresholds to inform resource management: current options and future possibilities. *Frontiers in Marine Science* 2:95.
4. Adey, W., Halfar, J., Humphreys, A., Suskiewicz, M., Belanger, D., Gagnon, P., **Fox, M.D.** 2015. Subarctic rhodolith beds promote longevity of crustose coralline algal buildups and their climate archiving potential. *Palaios* 30: 281-293.
3. **Fox, M.D.*** 2013. Resource translocation drives $\delta^{13}\text{C}$ fractionation during recovery from disturbance in giant kelp, *Macrocystis pyrifera*. *Journal of Phycology* 49: 811-15.
*Featured article
2. Gray, S.C., Sears, W.T., Kolupski, M.L., Hastings, Z.C., Przyuski, N.W., **Fox, M.D.**, DeGrood, A. 2012. Factors affecting land-based sedimentation in coastal bays, US Virgin Islands. *Proceedings of the 12th International Coral Reef Symposium*, Cairns, Australia, 9-13 July, 21A2.
1. Dikou, A., Ackerman, C., Banks, C., Dempsey, A., **Fox, M.D.**, et al. 2009. Ecological assessment to detect imminent change, Admiral Cockburn Land and Sea National Park, Turks and Caicos Islands. *Marine Ecology* 30: 425-436.

Book Chapters

Graham, M.H., **Fox, M.D.**, and Hamilton, S.L. 2016. Macrophyte productivity and the provisioning of energy and habitat to nearshore systems. In: *Marine Macrophytes as Foundation Species* (ed. Olafsson, E.), Science Publisher/CRC Press, Boca Raton, FL. ISBN 978-1-498-72324-4, pp. 131-160.

HONORS & AWARDS

- 2018 *Interdisciplinary Postdoctoral Scholarship*, WHOI
2017 *Achievement Award for College Scientists*, ARCS Foundation
2016 *Best Student Paper, honorable mention*, International Coral Reef Symposium
2013 *Nancy Foster Scholarship*, NOAA (1 of 3 awarded nationally)
2011 *Best Student Paper, honorable mention*, Western Society of Naturalists
2008 *Outstanding Undergraduate Research Award*, University of San Diego
2007 *Best Student Research*, School for Field Studies

RESEARCH FUNDING [\$8,470,233 USD awarded to date excluding KAUST funding]

Major Awards

- 2022-2024 *A globally coordinated, universally Accessible Digital Twin Network for the Coral Reef Blue Economy*, \$5,000,000
NSF Convergence Accelerator Phase II (NSF 2230734)
Co-PI with Drs. A. Cohen, W. Zhang, S. Thorrold
- 2021-2024 *The Biophysics of Coral Reef Resilience: Hydrodynamic and Ecological Drivers of Coral Survival Under Extreme Heat*, \$1,752,411
NSF Biological & Physical Oceanography (NSF OCE 2049567)
Co-PI with Drs. A. Cohen, W. Zhang, S. Thorrold, and S. Lentz
- 2021-2022 *A globally coordinated, universally Accessible Digital Twin Network for the Coral Reef Blue Economy*, \$747,606
NSF Convergence Accelerator Phase I (OIA 2137882)
Co-PI with Drs. A. Cohen, W. Zhang, S. Thorrold
- 2020 – 2021 *Super Reefs: Resilience based management in the Marshall Islands informed through hydrodynamic modeling*, \$365,662
Arthur Vining Davis Foundation
Co-PI with Anne Cohen and W. Zhang

Fellowships

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|-------------|---|-----------|
| 2018 – 2020 | <i>Interdisciplinary Postdoctoral Scholarship</i> , WHOI | \$120,000 |
| 2017 | <i>Ralph Lewin Fellowship in Marine Biology</i> , SIO | \$31,000 |
| 2013 – 2017 | <i>Nancy Foster Scholarship</i> , NOAA | \$188,000 |
| 2013 | <i>STAR Fellowship</i> , EPA [declined to accept Nancy Foster] | \$126,000 |
| 2013 | <i>Scripps Fellowship</i> , Scripps Institution of Oceanography, [declined] | \$25,000 |

Minor Awards

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| 2019 | <i>Catalyst Program</i> for coral reefs, WHOI | \$75,000 |
| 2018 | <i>Student Fellowship</i> , International Society for Isotope Ecology | \$750 |
| 2018 | <i>Graduate student Excellence</i> , SIO | \$1,000 |
| 2017 | <i>ARCS Scholarship</i> , ARCS Foundation | \$7,500 |
| 2017 | <i>Lerner-Gray Fund</i> , American Museum of Natural History | \$1,960 |
| 2017 | <i>Lewis and Clark Exploration Fund</i> , American Philosophical Society | \$3,000 |
| 2017 | <i>Research and Travel Award</i> , SIO | \$1,000 |
| 2017 | <i>Graduate student Excellence</i> , SIO | \$1,000 |
| 2016 | <i>Research and Travel Award</i> , Grad. Student Association, UCSD | \$300 |
| 2016 | <i>Graduate Student Excellence</i> , SIO | \$1,000 |

2015	<i>Research and Travel Award</i> , Grad. Student Association, UCSD	\$500
2012	<i>Hoshaw Travel Award</i> , Phycological Society of America	\$900
2012	<i>John H. Martin Scholarship</i> , Moss Landing Marine Labs	\$3,000
2012	<i>COAST Research Award</i> , California State Universities	\$3,000
2011	<i>Kevin Gurr Scholarship</i> , AAUS	\$1,500
2011	<i>Zale Parry Scholarship</i> , Academy of Underwater Arts & Sciences	\$3,000
2011	<i>Meyers Grant</i> , Myers Oceanographic and Marine Biology Trust	\$1,000
2011	<i>Research and Travel Grant</i> , David and Lucile Packard Foundation	\$1,000
2011	<i>Excellence in Marine Science Award</i> , Underwater Society of America	\$500
2010	<i>California Diving & Aquatic Studies Scholarship</i> , CEN CAL	\$1,000
2007	<i>Summer Undergraduate Research Grant</i> , University of San Diego	\$6,644

NON-ACADEMIC POSITIONS HELD

2017 – 2020	<u>Scientific Advisor</u> , California Seaweed Co.
2012 – 2013	<u>Consultant for green algal aquaculture</u> , Vascular Health Services
2011 – 2013	<u>Aquaculture technician</u> , Monterey Bay Seaweeds
2010 – 2013	<u>Contract diver</u> , US Naval Postgraduate School and NOAA
2009 – 2013	<u>Research intern</u> , Center for Ocean Solutions, Stanford University
2012	<u>Aquaculture Consultant</u> , Bio Architecture Labs

INVITED TALKS

2022	United Nations FAO, Workshop on algae culture and innovation, Thuwal, Saudi Arabia
2021	King Abdullah University of Science and Technology, Red Sea Research Center
2021	Coastal Carolina University
2020	University of Rhode Island, Graduate School of Oceanography
2020	University of North Carolina Wilmington, Center for Marine Science
2020	WHOI Biology Department
2020	WHOI Marine Chemistry and Geochemistry Department
2019	Moss Landing Marine Laboratories
2019	Center for Stable Isotopes, University of New Mexico
2019	NOAA National Marine Sanctuaries Webinar Series
2018	Smithsonian Marine Station, Ft. Pierce, FL
2017	University of New Mexico
2017	San Diego State University
2017	UC San Diego
2016	Palmyra Atoll Research Consortium
2015	Maldives National University

CONFERENCE CONTRIBUTIONS (selected oral presentations)

2022	International Coral Reef Symposium, Bremen, Germany <i>*Session Chair – What are the roles of nutrients in coral reef survival?</i> <i>*Oral presentation and co-author of 8 additional abstracts</i>
2019	American Geophysical Union, San Francisco, CA <i>*Invited talk (session: Development and application of coral proxies for ocean change)</i> <i>*Co-author of invited talk (session: Multiple isotope patterns within organic compounds: determining the biogeochemical and environmental drivers)</i>

- 2018 Stable Isotope Ecology Meeting (IsoEcol), Viña del Mar, Chile
- 2016 Western Society of Naturalists, Monterey, CA
- 2016 International Coral Reef Symposium, Honolulu, HI
*Best student paper honorable mention
- 2014 Ecological Society of America Annual meeting, Sacramento, CA
- 2012 Western Society of Naturalists, Seaside, CA
- 2012 Phycological Society of America, Charleston, SC
- 2011 Western Society of Naturalists, Vancouver, WA
*Best student paper honorable mention

MENTORING (3 postdocs, 12 graduate and 19 undergraduate students since 2014)

Graduate students

- 2022-Pres. Ioana Andreea Ciocanaru, *KAUST* (co-supervisor, PhD)
- 2022-Pres. Raquel Lubambo, *KAUST* (co-supervisor, PhD)
- 2022-Pres. Natalie Dunn, *KAUST* (committee member, PhD)
- 2022-Pres. Colleen Campbell, *KAUST* (committee member, PhD)
- 2022-Pres. Luthfiyyah Azizah, *KAUST* (committee member, PhD)
- 2022-Pres. Razan Alfaghiah, *University of Jeddah* (MS)
- 2022-Pres. Daniah Alzahrani, *University of Jeddah* (MS)
- 2022-Pres. Lisa Goberdhan, *Bangor University* (PhD)
- 2022-Pres. Sophia Troeh, *Northeastern University Three Seas Program* (MS)
- 2020 Andre Briscoe, *Northeastern University, Three Seas Program* (MS)
- 2019 Laura Dissly, *Northeastern University, Three Seas Program* (MS)
- 2016 Brant Chlebowski, *UC San Diego, Master's of Advanced Studies* (MAS)
- 2015 Breck Archer, *UC San Diego, Master's of Advanced Studies* (MAS)

Undergraduate students

- 2021 Capria Nordquist, *WHOI Summer Student Fellow*
- 2020 Claire Zobel, *Mamaroneck High School*
- 2019 Ellen Park, *WHOI Summer Student Fellow*
- 2018 Michael Carlson, *UC San Diego*
Amanda Leu, *UC San Diego*
Cassandra Paumard, *UC San Diego*
Jessica Glanz, *UC Santa Cruz* (2016-2018)
- 2017 Ellis Juhlin, *UC San Diego* *Best student poster award at Scripps Undergraduate Symposium
Spencer Breining-Aday, *UC San Diego*
Mario Gaytan, *UC San Diego*
- 2016 Alex Reich, *UC San Diego*
Ellen Williams, *UC San Diego* *Best student poster award at Scripps Undergraduate Symposium
Mikaela Ragazzao, *University of San Diego*
- 2015 Annika Vawter, *UC Santa Barbara*
Steven Deah, *UC San Diego*
- 2014 Mallory Rice, *Sanoma State*
Laura Grossman, *Scripps College*
Dane Ferrari-Esias, *UC San Diego*
Emily Miller, *UC San Diego*

TEACHING EXPERIENCE

- 2022 Guest lecturer, Marine Life – Trophic Ecology on Coral Reefs, KAUST
2022 Guest lecturer, Oceanography on coral reefs, Sea Education Association (SEA)
2021 Guest lecturer, Oceanography on coral reefs, Sea Education Association (SEA)
2019 Guest lecturer, Coral Reef Ecology Course, Bermuda Institute of Ocean Sciences
2018 Guest lecturer, Intro to Marine Biology, UC San Diego
2018 Guest lecturer, Student Sustainability Collective, UC San Diego
2018 Guest lecturer, Phycology, Scripps Institution of Oceanography
2018 Teaching Assistant, Phycology, Scripps Institution of Oceanography
2015 Instructor, Coral Reef Monitoring Workshop, *IUCN*, Maldives
2010 – 2011 Instructor and teaching assistant, Scientific diving, MLML

ACADEMIC SERVICE AND COMMUNITY OUTREACH

- 2021 Educational Workshop on Implicit Bias, WHOI
2021 Unlearning Racism in the Geosciences (URGE) working group (16 weeks)
2021 WHOI Postdoctoral Representative for Improving Psychological Safety Initiative
2021 Alumni Panelist for 11th Annual Monterey Area Research Institutions Network for Education (MARINE) Winter Colloquium
2019 – 2022 WHOI Laboratory tours for undergraduate students
2019 – 2022 Letters to a scientist program, Colonial Park Elementary School, Stoneham, MA
2019 – 2022 Classroom visits for meet a scientist day, Elementary and Middle Schools, MA
2017 Public comment review for National Marine Sanctuaries and Monuments, NOAA
2017 NOAA Get into your Sanctuary Day, Waikiki Aquarium
2017 Chasing Coral Premier, Waikiki Aquarium, NOAA
2016 – 2018 Annual Career Day, Muirlands Middle School, La Jolla, CA
2016 Founding member, Interdisciplinary Stable Isotope Forum, UCSD
2015 Meet a Scientist Day, Molokai, HI
2014 Organizer, Marine Biology Seminar Series, SIO
2012 Committee Member, Regional Water Management Plan, Monterey County, CA.
2012 Moss Landing Marine Labs tours for Oakland Kipp School
2011 – 2012 Volunteer, Marine Advanced Technology Education student ROV contest
2010 – 2013 Student liaison, MARINE, Stanford University
2010 – 2013 Member, Diving Control Board, Moss Landing Marine Labs
2010 – 2011 Secretary, graduate student association, Moss Landing Marine Labs
2008 – 2009 Bay Host, Virgin Islands National Park
2008 Coral Bay Community Youth Rally, St. John, USVI

PROFESSIONAL DEVELOPMENT

- 2021 Remote Sensing for Coral Reef Conservation, The Nature Conservancy
2019 Grant Writing Workshop, WHOI
2017 Visiting Scholar, NOAA Office of National Marine Sanctuaries, Honolulu, HI
2017 Survivor's Guide to Stable Isotope Ecology Short Course, Sicily, Italy
2015 Light and Photosynthesis on Coral Reefs Short Course, Puerto Morelos, Mexico

- 2013 Ocean Conservation Leadership Practicum, Stanford University
- 2012 Interdisciplinary Marine Science Short Course, Stanford University
- 2011 Climate Change and Monterey Bay Workshop, Stanford University
- 2011 Ocean Policy & Marine Conservation Short Course, Stanford University
- 2010 Communicating science to policy makers workshop, Stanford University
- 2005 National Outdoor Leadership School (NOLS)

MEDIA AND PRESS

Geophysical Research Letters Paper highlighted by AGU and NSF

<https://news.agu.org/press-release/some-coral-reefs-are-keeping-pace-with-ocean-warming/>
<https://beta.nsf.gov/news/some-coral-reefs-are-keeping-pace-ocean-warming>

Featured on the Functional Ecologists blog:

<https://functionalecologists.com/2019/09/18/michael-fox-variable-diets-of-coral-reefs/>

Article for **The Conversation** (>2500 reads):

We tracked coral feeding habits from space to find out which reefs could be more resilient

<https://theconversation.com/we-tracked-coral-feeding-habits-from-space-to-find-out-which-reefs-could-be-more-resilient-105107>

Nancy Foster Scholar Spotlight for NOAA National Marine Sanctuaries

<https://sanctuaries.noaa.gov/news/mar18/the-coral-doctor-foster-scholar-michael-fox.html>

SEAGOING EXPERIENCE (~325 days at sea)

- 2023 *M/Y Dream Master* – Farasan Banks, Saudi Arabia (Chief Scientist, 10 days)
- 2023 *M/Y Tempest* – Farasan Banks, Saudi Arabia (Chief Scientist, 10 days)
- 2022 *OceanX* – Red Sea Ocean Decade Expedition, Gulf of Aqaba (15 days)
- 2022 *M/Y Tempest* – Farasan Banks, Saudi Arabia (Chief Scientist, 5 days)
- 2022 *M/Y Ocean Sapphire* (KAUST) – South Ari Atoll, Maldives (10 days)
- 2021 *Offshore Solution* (National Geographic) – Southern Line Islands (22 days)
- 2019 *R/V Grampian Frontier* (Bangor) – British Indian Ocean Territory (25 days)
- 2018 *S/Y Sea Dragon* (WHOI) – Phoenix Islands, Kiribati (30 days)
- 2017 *M/Y Palau Siren* (SIO) – Remote SW Islands of Palau (14 days)
- 2015 *M/Y Theia* (IUCN) – North Ari Atoll, Maldives (14 days)
- 2014 *R/V Hi'ialakai* (NOAA PIFSC) – Maug, Mariana Islands (10 days)
- 2013 *M/Y Hanse Explorer* (SIO) – Southern Line Islands, Kiribati (28 days)
- 2013 *S/Y Alca I* (Smithsonian) – Labrador, Canada (60 days)
- 2009 *R/V Nathaniel B. Palmer* (USAP) – SE Weddell Sea, Antarctica (40 days)
- 2005 – 2012 >30 single day cruises with multiple institutions incl. SIO, MLML, and MBARI.

SHORE BASED FIELD EXPERIENCE

- 2022 Palmyra Atoll (Expedition Leader – 28 days)
- 2020 Palmyra Atoll (15 days)
- 2019 Bermuda Institute of Ocean Sciences (Expedition Leader – 10 days)
- 2018 Kiritimati, Kiribati (Expedition Leader – 8 days)
- 2017 Hawai'i Institute of Marine Biology (Expedition Leader – 14 days)
- 2017 Smithsonian Tropical Research Institute, Bocas del Toro, Panama (14 days)
- 2016 Palmyra Atoll (Expedition Leader – 28 days)

2016 Palmyra Atoll (7 days)
2017 Hawai'i Institute of Marine Biology (Expedition Leader – 14 days)
2015 Maui, Hawai'i (14 days)
2015 Palmyra Atoll (22 days)
2015 Hawai'i Institute of Marine Biology (Expedition Leader – 70 days)
2015 Universidad Nacional Autonoma de Mexico, Puerto Morelos, Mexico (21 days)
2014 Palmyra Atoll (22 days)
2012 Universidad de los Lagos, Puerto Montt, Chile (21 days)
2011 Wrigley Institute for Environmental Science, Catalina Island (14 days)
2009 – 2013 California kelp forests from San Diego to Santa Cruz (>250 dives)
2008 – 2009 Virgin Islands Environmental Resource Station, St. John, USVI (13 months)
2007 Virgin Islands Environmental Resource Station, St. John, USVI (30 days)
2007 School for Field Studies, Turks and Caicos Islands, (4 months)

CERTIFICATIONS and SKILLS

AAUS, SIO (100') >1,000 scientific dives
NAUI Scuba Instructor (#52221, UCSC Scientific Instructor course 2010)
NAUI Nitrox
NAUI First aid, CPR & O₂ Instructor
DAN Oxygen Administration
Drysuit and cold-water diving – extensive experience in the Canadian subarctic (~100 dives)
Small boat operations – extensive experience in coastal & offshore navigation
- 8-15 ft. zodiacs, 16-23 ft. skiffs, and 25 ft. RHIBs

PROFESSIONAL SERVICE

Manuscript Reviews

Bul. of Marine Science · Chemical Geology · Climatic Change · Continental Shelf Research · Coral Reefs · Ecology · Environmental Microbiology · Functional Ecology · Geophysical Research Letters · Global Change Biology · Global Ecology and Biogeography · Journal of Animal Ecology · Limnology and Oceanography · Marine Ecology Progress Series · Oecologia · PeerJ · Royal Society Open Science · Scientific Reports · Science of the Total Environment

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science (AAAS)
American Academy of Underwater Sciences (AAUS)
American Geophysical Union (AGU)
International Society for Reef Studies
Phycological Society of America
Western Society of Naturalists